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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/635,253	08/06/2003	Chul-Sung Park	8836-202 (ID12076-US)	9451
22150	7590	03/22/2005	EXAMINER	
F. CHAU & ASSOCIATES, LLC 130 WOODBURY ROAD WOODBURY, NY 11797			NGUYEN, MINH T	
			ART UNIT	PAPER NUMBER
			2816	

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/635,253

Applicant(s)

PARK ET AL.

Examiner

Minh Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 11-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 11-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/24/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's amendment filed on 12/17/04 has been received and entered in the case. Claims 1-7 and 11-19 are pending. The amendment and argument presented therein overcome the informality objection noted in the previous Office action, therefore, is withdrawn. However, the indefiniteness rejection and prior art rejection are not overcome by the arguments, and therefore, are maintained for the reasons set forth below. This action is FINAL.

Information Disclosure Statement

2. The information disclosure statement filed 9/24/04 fails to comply with 37 CFR 1.98(a)(1), which requires the following: (1) a list of all patents, publications, applications, or other information submitted for consideration by the Office; (2) U.S. patents and U.S. patent application publications listed in a section separately from citations of other documents; (3) the application number of the application in which the information disclosure statement is being submitted on each page of the list; (4) a column that provides a blank space next to each document to be considered, for the examiner's initials; and (5) a heading that clearly indicates that the list is an information disclosure statement. The information disclosure statement has been placed in the application file, but the information referred to therein has not been considered. Enclosed in this Office action is a signed copy of PTO-1449 with items which are not considered being crossed-out.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 1-7 and 11-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 1, the phrase "a direct current voltage signal" recited on line 2 is confusing, i.e., it is unclear if it is referring to a current signal or a voltage signal. If it is referring to a direct current signal, it is suggested that the phrase is changed to -- a direct current signal --. If it is referring to a direct voltage signal, it is suggested the phrase is changed to -- a direct voltage signal --. The phrase "an alternating current voltage signal" recited on line 3 is also confusing, i.e., it is unclear if it is referring to a current signal or a voltage signal.

As per claims 2-7 and 11-15, these claims are rejected because of the indefiniteness of claim 1.

As per claims 16 and 17, the same problem exists in each claim as discussed in claim 1.

As per claims 18-19, these claims are rejected because of the indefiniteness of claim 17.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 3,993,984, issued to Penrod.

As per claim 1, Penrod discloses an integrated circuit device (Fig. 1) comprising:

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a pin (the pin where S1 is connected) for receiving a direct current voltage signal (the DC component of the signal on the AC line);

a signal source (the source which generates the signal on the AC LINE 10) for applying an alternating current voltage signal (column 2, line 27-28, i.e., alternating current power line 10) to the pin;

a buffer (15) for converting the alternating current voltage signal into a digital signal (column 2, lines 40-42); and

a digital detector (comparator 35, digital because the input signal from the counter 25 to the comparator is digital) for detecting a frequency of the digital signal (column 2, lines 62-66) and outputting a predetermined detection signal (the signal on line 37, also see column 2, lines 62-66).

As per claim 2, the recited limitation is described in column 2, lines 62-66.

As per claim 4, the recitation is merely an intended use of the predetermined detection signal. It is clear that the Penrod's predetermined detection signal on line 37 is capable of being used for setting predetermined functional modes.

As per claim 14, this claim is rejected for the same reasons noted in claim 2.

5. Claims 1-2, 4 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 4,468,796, issued to Suga.

As per claim 1, Suga discloses an integrated circuit device (Fig. 1) comprising:

a pin (the input terminal of the BF circuit) for receiving a direct current voltage signal (the DC component of the PT signal);

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a signal source (the source which generates the signal PT INPUT, i.e., the potential transformer PT, column 1, line 39) for applying an alternating current voltage signal (column 1, line 38, i.e., the sine wave) to the pin;

a buffer (BF) for converting the alternating current voltage signal into a digital signal (column 1, lines 39-40); and

a digital detector (comparator COM, digital because the input signal from the pulse counter C to the comparator is digital) for detecting a frequency of the digital signal (column 2, lines 62-66) and outputting a predetermined detection signal (the signal T, see column 2, lines 27-30).

As per claim 2, the recited limitation is described in column 2, lines 27-30.

As per claim 4, the recitation is merely an intended use of the predetermined detection signal. It is clear that the Suga's predetermined detection signal T is capable of being used for setting predetermined functional modes.

As per claim 14, this claim is rejected for the same reasons noted in claim 2.

Response to Arguments

6. Applicant's arguments filed 12/17/04 have been fully considered but they are not persuasive.

Regarding the argument that the phrase "direct current voltage signal" means a voltage signal applied to a pin may be one of a direct current or an alternating current.

The response is not found persuasive because when the word "direct" is used, it can not be interpreted as either "direct" or "alternating". As the applicant is well aware, a DC current is

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different and distinct from an AC current. Further, the applicant has not explained the examiner's concerns raised in the previous rejection, i.e., it is unclear if it is referring to a current signal or a voltage signal.

Regarding the argument Penrod does not teach applying an alternating current to a pin for receiving a direct current voltage signal.

As noted in the preceding rejection, column 2, lines 27-28 of Penrod explicitly discloses that the pin receives the alternating current on the AC LINE. The pin further receives a direct current voltage signal which is the DC component of the alternating current on the AC LINE.

Regarding the argument Suga does not teach applying an alternating current to a pin for receiving a direct current voltage signal.

As noted in the preceding rejection, column 1, lines 38-39 of Suga explicitly discloses that the pin receives the alternating current, i.e., sine wave. The pin further receives a direct current voltage signal which is the DC component of the alternating current.

Allowable Subject Matter

7. Claims 3, 5-7, 11-13 and 15-19 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 3, 5-7, 11-13 and 15 are allowable for the reasons noted in the previous Office action.

Claims 16-19 are allowable for the reasons noted in claim 5 or 11.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Nguyen whose telephone number is **571-272-1748**. The examiner can normally be reached on Monday, Tuesday, Thursday, Friday 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



3/17/05

Minh Nguyen
Primary Examiner
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